

REMARKS/ARGUMENTS

[0300] Claims 8 and 16-19 have been cancelled. Claims 1, 3-7, 9 and 11-15 have been amended. All claim amendments represent restrictions on the claims as previously presented and merely claim features already disclosed in the original specification. The amendments are discussed below in response to specific rejections stated in the Detailed Action.

[0301] Claims 20-22 have been added. Claim 20 is an independent claim of the type allowed under 35 U.S.C § 112, ¶ 6 and as such “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C § 112, ¶ 6. Since this added claim incorporates the specification, and the specification is as originally submitted, this claim introduces no new material. Claim 20 simply claims features already disclosed in the original specification. Similarly, Claims 21 and 22 are dependent on Claim 20 and claim features disclosed in the original specification.

[0302] I. 35 USC § 103(a) Obviousness Rejection of Claims 1 and 9

[0303] Claims 1 and 9 have been amended to clarify the scope of applicant’s invention. First, applicant added the phrases to the claims stating that the rigid member will be rotating at a different angular rate than the rigid members containing the demarcations used to interpret the indicated time. Second, applicant added phrases to the claims which state that the rigid members are held in place by the force of gravity. These phrases reflect design elements that were clearly described in the original specification in that each and every drawing clearly depicts rigid members hanging on to drive wheels in a manner in which the rigid members are held in place by the force of gravity. Furthermore, each and every drawing in the original specification clearly depicts a time indication system where, in order to be interpreted using traditional clock interpretation methods, the drive wheel must necessarily be rotating at a different rotational rate than the rigid members with the indication demarcations. The relationship of drive wheel rotational rate to that of the rigid members is also described in the original specification at paragraph [0029].

[0304] In Claims 1 and 9, as they appeared prior to this revision, applicant had attempted to indicate these relationships by using the terms “suspended” and “hangs on.” However, as noted by the examiner, these terms could also describe a pressed-on or attached arrangement such as that in Stanish [US 3,890,777]. Therefore applicant has amended the Claims 1 and 9 to more accurately describe the embodiments shown in the original application.

[0305] The amendments to Claims 1 and 9 make a 35 U.S.C. § 103(a) rejection based on Stanish in view of Hartwig [US 3,668,858] no longer viable. Neither Stanish or Hartwig disclose an apparatus where the time indicating elements are held in place by the force of gravity, nor do they disclose systems where the members directly driving the indicator member rotate at a different rotational rate than the indicating members.

[0306] Applicant also respectfully objects to the 35 U.S.C. § 103(a) rejection based on what applicant believes to be an erroneous interpretation of Hartwig. The Detailed Action states “Hartwig discloses a timepiece having a plurality of shaft members [21, 54] engaging drive wheels [24, 48] to drive rigid members....” Detailed Action page 3. The description of Hartwig elements [24] and [48] as drive wheels is incorrect. In no place does Hartwig describe these elements as drive wheels. Element [48] is simply described as “inner teeth” [column 4, line 39]. Element [48] is not a drive wheel, and it does not drive any other part in the Hartwig design. Element [48] is simply a feature rigidly attached to hour indicator [44]. Furthermore, Hartwig refers to [24] as a disc [column 3, line 69] and this is a more accurate description of the element. Applicant asserts that calling element [24] a drive wheel is incorrect in that it does not have the features or shape typically associated with a wheel. Therefore, applicant asserts that the 35 U.S.C. § 103(a) rejection based on combining Stanish with element [24] and [48] of Hartwig is improper since elements [24] and [48] of Hartwig cannot be correctly referred to as drive wheels.

[0307] In summary, applicant asserts that the current amendments to Claims 1 and 9 make the reference to Stanish in the 35 U.S.C. § 103(a) rejection no longer valid. Applicant also asserts that it was improper to call Hartwig elements [24] and [48] “drive wheels” and to use that description in combination with Stanish as a basis for the 35 U.S.C. § 103(a) rejection.

[0308] II. 35 USC § 103(a) Obviousness Rejection of Claims 3 and 11

[0309] The Detailed Action states that “Stanish disclose [sic] everything claimed except the rigid members being transparent.” Detailed Action page 3. This statement is inaccurate and in direct contradiction to the assertions previously stated in the Detailed Action that Stanish did not disclose everything claimed (and hence the 35 U.S.C. § 103(a) rejection combining Stanish with Hartwig). As stated above, applicant asserts that Claims 1 and 9 are patentable, and hence Claims 3 and 11, which are dependent on Claims 1 and 9, are therefore patentable.

[0310] Applicant also asserts that the statement in the Detailed Action “Hartwig discloses the rigid members being substantially clear annular rings [column 2, lines 45-57]” is factually incorrect and therefore the 35 U.S.C. § 103(a) rejection of Claims 3 and 11 should not be upheld. Hartwig does state “indicating elements are made of a transparent material” [column 2, lines 46-47] but the elements referred to are clearly discs. It would be an improper and unreasonable stretch to use the term “annular ring” to describe what, in Hartwig, is essentially a disc with a hole in the center.

[0311] However, to further differentiate applicant’s design and to make the term “annular ring” used by applicant perfectly clear, applicant has amended Claims 3 and 11 to further narrow the term “annular ring.” This is accomplished by adding a statement defining annular ring as having an inner radius that is at least ten percent as large as the outer radius. By adding this clarification, applicant is eliminating the possibility that the term “annular ring” could be used to describe a disc with a hole in the center (for example as shown in Hartwig). The clarification further eliminates the possibility that a disc with a hole in the center (such as in Hartwig) could be interpreted as an annular ring as the expression is used by applicant. However, applicant continues to assert that referring to the disc components of Hartwig as annular rings is an unreasonable use of the term “annular ring.” This clarification of Claims 3 and 11 reflects design elements that were clearly described in the original specification in that each and every drawing featuring an annular ring falls within the described parameters. This modification to the claims simply clarifies what was disclosed in the original specification and does not introduce new material.

[0312] III. 35 USC § 103(a) Obviousness Rejection of Claims 4-5 and 12-13

[0313] The Detailed Action states that “Stanish disclose [sic] everything claimed except for the clock work including a third output shaft with a third coaxially mounted rigid member....” Detailed Action page 3. This statement is inaccurate and in direct contradiction to the assertions previously stated in the Detailed Action that Stanish did not disclose everything claimed (and hence the 35 U.S.C. § 103(a) rejection combining Stanish with Hartwig). Applicant asserts that Claims 1 and 9 are patentable, and hence Claims 4-5 and 12-13, which are dependent on Claims 1 and 9, are therefore patentable.

[0314] Applicant asserts that neither Stanish nor Hartwig discloses rigid members being annular rings as in applicant’s Claims 4 and 12. Therefore, it is improper to use Stanish in view of Hartwig to make 35 U.S.C. § 103(a) rejection of claims 4 and 12 when neither Stanish or Hartwig disclose annular rings. As stated above, it would be an unreasonable interpretation of the term “annular ring” to call any of the components of Stanish or Hartwig an annular ring.

[0315] The Detailed Action states that Hartwig discloses a “third output shaft [42]” and this is then used as the basis for a 35 U.S.C. § 103(a) rejection of Claims 4-5 and 12-13. Detailed Action page 3. However, Hartwig does not contain three output shafts, so there can be no third output shaft. A close examination of Hartwig reveals no clockwork with coaxial output shafts, no coaxial output shafts, no drive shafts, and no third output shaft. It is therefore inappropriate to use Hartwig for a 35 U.S.C. § 103(a) rejection.

[0316] A close examination of Hartwig further reveals that the entire mechanism is driven by a reciprocating member [38, figures 7 and 16] which carries a disk [29] through 6° by engaging the toothed edge of the disk. This motion is described in detail [column 4, lines 55-58]. The description of Hartwig element [42] as a third output shaft is incorrect. Hartwig has no output shafts. Hartwig contains a pin [54, column 4, line 34], not a driven shaft, around which the indicating members rotate. Hartwig is a device which is driven by a single reciprocating arm [38] engaging the edge of a disk used to indicate seconds [29]. Once every minute, the seconds indicating disk [29] rotates so that a special, deeper tooth [37] is presented to the reciprocating member [38]. When the reciprocating member [38] engages the seconds indicating disk [29] at

the deeper tooth [37], the deeper penetration of the reciprocating member [38] allows it to also engage a minute indicating disk [17], the result being the both the seconds indicating disk [29] and the minute indicating disk [17] are rotated through 6°. There is also a mechanism, located in the center of the minute indicating disk which rotates the hour indicating disk [44] through a toothed wheel arrangement [figure 2].

[0317] Applicant respectfully asserts that the use the combination of Stanish with the third output shaft of Hartwig to reject Claims 4-5 and 12-13 was improper for at least two reasons. First, applicant's Claims 4 and 12 do not contain third output shafts. Second, Hartwig does not contain a third output shaft and therefore should not have been combined with Stanish in support of the 35 U.S.C. § 103(a) rejection of applicant's Claims 4-5 and 12-13.

[0318] As in applicant's Claims 3 and 11 discussed above, to further differentiate applicant's design and to make the term "annular ring" used by applicant perfectly clear, applicant has amended Claims 4 and 12 to further narrow the term "annular ring." This is accomplished by adding a statement defining annular ring as having an inner radius that is at least ten percent as large as the outer radius. This clarification of Claims 4 and 12 reflects design elements that were clearly described in the original specification in that each and every drawing featuring an annular ring falls within the described parameters. This modification to the claims simply clarifies what was disclosed in the original specification and does not introduce new material.

[0319] Furthermore, as in applicant's Claims 1 and 9 discussed above, Claims 5 and 13 have been amended to state that the third rigid members are held in place by the force of gravity. This reflects design elements that were clearly described in the original specification in that each and every drawing containing a third rigid member with demarcation to indicate seconds clearly depicts that member hanging on to a third drive wheel in a manner in which the rigid member is held in place by the force of gravity [figures 3-4].

[0320] In summary, applicant asserts that the current amendments to Claims 4-5 and 12-13 which are dependent on Claims 1 and 9, respectfully, are patentable since the combination of Stanish and Hartwig do not disclose all of the claimed components in applicant's claims.

Applicant also asserts that it was improper to call Hartwig elements [42] a “third output shaft” and to use that description in combination with Stanish as a basis for the 35 U.S.C. § 103(a) rejection.

[0321] IV. 35 USC § 103(a) Obviousness Rejection of Claim 7

[0322] The Detailed Action states that “Hartwig discloses the first rigid member having an annular ring to contact the drive shaft which is furthest from the clockwork and comprises a flange to attached [sic] the annular ring to a surface perpendicular to the axis of rotation being large enough to hide the drive wheel from view and provide an area for demarcation to indicate time [figure 12].” Detailed Action page 4. Applicant asserts that this statement in the detailed action is non-communicative. In the statement the detailed action names several components (“first rigid member,” “annular ring,” “drive shaft,” “clockwork,” “flange” and “drive wheel”) without an indication of where these components are on Hartwig [figure 12]. After a thorough examination, applicant is unable to determine what was meant in the detailed action by these terms and others such as “surface perpendicular to the axis of rotation being large enough to hide the drive wheel.” Questions such as: “What surface is being referred to?” and “What component is the ‘drive wheel’ and how is it hidden?” are unanswerable from the information given in the detailed action. Hartwig has no flange attached to an annular ring which hides a drive wheel.

[0323] Applicant respectfully asserts that the combination of Stanish and the components inaccurately attributed to Hartwig can not form the basis for a valid 35 U.S.C. § 103(a) rejection and therefore Claim 7 should be allowed.

[0324] However, applicant has amended Claim 7 to clarify ambiguities in the previous version and to indicate an embodiment where the second rigid member is an annular ring. This claim encompasses designs disclosed in the original specification in figures 7-12. This amendment to Claim 7 simply clarifies what was disclosed in the original specification and does not introduce new material.

[0325] V. 35 USC § 103(a) Obviousness Rejection of Claims 6 and 14-15

[0326] The rejection in the Detailed Action of Claims 6 and 14-15 is based on the rejection of the independent claims 1 and 9. As discussed above, Claims 1 and 9 should now be allowed, therefore the rejection of applicant's Claims 6 and 14-15 based on the combination of Stanish, Hartwig and Truini [US 5,359,578] should not stand and Claims 6 and 14-15 should be allowed.

[0327] Applicant respectfully notes that the Detailed Action incorrectly identifies Truini as having "at least two annular rings[8.8, 8.5]." In Truini, member [8.8] is a disc and is called "a concentric circular disc" by Truini [column 12, line 57]. It is not an annular ring. Therefore, since Truini does not suggest different sized rings, it is incorrect for the Detailed Action to state that rings with different sized diameters is suggested by Truini. Also, the Stanish, Hartwig and Truini references are complete on their own, so there is no reason to combine them or use features from one and apply them to the others.

[0328] However, applicant has amended Claim 6 to clarify ambiguities in the previous version and to make the term "annular ring" used by applicant perfectly clear. This is accomplished by adding a statement defining annular ring as having an inner radius that is at least ten percent as large as the outer radius. This clarification reflects design elements that were clearly described in the original specification in that each and every drawing featuring an annular ring falls within the described parameters. This modification to the claim simply clarifies what was disclosed in the original specification and does not introduce new material. Claims 14 and 15 were amended in a similar fashion for the same reasons.


[0329] VI. Summary

[0330] Given the mechanical novelty and nonobviousness of applicant's design, applicant's invention represents a novel and nonobvious improvement over the prior art in what is a crowded field. Applicant has clearly demonstrated how Stanish as modified by Hartwig is an inappropriate basis for the 35 USC § 103(a) rejection. The Stanish and Hartwig references

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are complete on their own, so there is no reason to combine them or use features from one and apply them to the other. Similarly, applicant has demonstrated how Stanish as modified by Hartwig and Truini is also an inappropriate basis for the 35 USC § 103(a) rejection. Accordingly, applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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